



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/529,379	05/10/2000	XANDER VAN DER HELDEN	BO 41504	7020

466 7590 02/05/2003

YOUNG & THOMPSON
745 SOUTH 23RD STREET 2ND FLOOR
ARLINGTON, VA 22202

EXAMINER

LAFORGIA, CHRISTIAN A

ART UNIT	PAPER NUMBER
----------	--------------

2155

DATE MAILED: 02/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/529,379

Applicant(s)

VAN DER HEIJDEN ET AL.

Examiner

Christian La Forgia

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) 1-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. The amendment filed on 10 May 2000 has been received and made of record.
2. Claims 1 through 55 are presented for examination.
3. Claims 1 through 27 have been withdrawn from consideration.

Drawings

4. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 28 through 55 rejected under 35 U.S.C. 102(b) as being anticipated by Internetworking with TCP/IP Principles, Protocols, and Architectures by Douglas E. Comer (hereinafter referenced as Comer).

7. As per claim 28, Comer teaches a method of point-to-point communication between a sender (SRV(m)) and a receiver (SRV(m)) by means of messages with flexible message formats (ILMF), the messages each comprising:

8. a header at least comprising message definition references (MSG ID, MSG CLASS, MSG VERSION, MSG CREATOR), a sender identifier (SENDER ID) and a destination address (DESTINATION ADDRESS) (Figures 7.3, 13.7, & 13.8; page 98, **7.7.1 Datagram Format** to

Art Unit: 2155

page 99, **7.7.2 Datagram Type of Service and Differentiated Services**; page 221, **13.11 TCP Segment Format** to page 222, **13.12 Out of Band Data**);

9. message content including at least:
10. number of fields (FIELD COUNT) and content of any field (FIELD(1), . . .) (Figure 7.3; page 99, paragraphs 2 & 3 beginning at “The header length field (HLEN). . .” and ending with “. . . packets larger than 65,535 octets”);
12. characterized in that the message content also comprises:

number of objects (OBJECT COUNT) and content of any object (OBJECT (1) , . . .), the objects being referred to by one or more of the fields (Figure 7.3 & 7.9; page 99, paragraphs 2 & 3 beginning at “The header length field (HLEN). . .” and ending with “. . . packets larger than 65,535 octets”; page 102, **7.7.4 Datagram Size, Network MTU, and Fragmentation** to page 106, **7.7.7 Time to Live (TTL)**);

number of field mappings and content of any field mapping, any field mapping being usable by predetermined fields (Figure 7.9; page 102, **7.7.4 Datagram Size, Network MTU, and Fragmentation** to page 106, **7.7.7 Time to Live (TTL)**);

number of actions and content of any actions, any action being at least usable by predetermined fields (Figure 7.9; page 102, **7.7.5 Reassembly of Fragments** to page 106, **7.7.7 Time to Live (TTL)**);

and in that the method further includes the step of:

interpreting and processing any of the messages using a database (ILMDB) storing a message definition table (msgdef), a field definition table (flddef), mapping instructions (fldmap) and message action lists (fldact, msgpre,

Art Unit: 2155

msgpost) (Figure 7.9; page 102, **7.7.6 Fragmentation Control** to page 106, **7.7.7**

Time to Live (TTL))).

13. Regarding claim 29, Comer teaches, wherein the message definition references comprise a message identifier (MSG ID) for identifying any of the messages (Figures 7.3, 7.9, & 13.7; page 105, **7.7.6 Fragmentation Control** to page 106, **7.7.7 Time to Live (TTL)**; page 221, **13.11 TCP Segment Format** to page 222, **13.12 Out of Band Data**).

14. Regarding claim 30, Comer teaches, wherein the message definition references comprise a message class identifier (MSG CLASS) for identifying a message class for any of the messages, like mail, business message, orders or shipping (Figures 7.3 & 7.4; page 99, **7.7.2 Datagram Type of Service and Differentiated Services** to page 101, **7.7.3 Datagram Encapsulation**).

15. Regarding claim 31, Comer teaches, wherein the message definition references comprise a message version identifier (MSG VERSION) for identifying a version number of any of the messages (Figures 7.3 & 13.7; page 98, last paragraph to page 99, the line ending with “IPv4 is often used to denote the current protocol”; page 225, **13.15 Acknowledgements and Retransmission**).

Art Unit: 2155

16. Regarding claim 32, Comer teaches, wherein the message definition references comprise a message creator identifier (MSG CREATOR) for identifying a creator of any of the messages (Figures 7.3 & 13.7; page 221, **13.11 TCP Format**).

17. Regarding claim 33, Comer teaches, wherein the header comprises a reference to a type of encryption (ENCRYPTION TYPE) applied (Figures 7.3, 7.10, 7.11, 7.12, & 13.7; page 107, **7.8 Internet Datagram Options** to page 109, **7.8.1 Record Route Option**).

18. Regarding claim 34, Comer teaches, wherein the header comprises a reference to a type of compression (COMPRESSION TYPE) applied (Figures 7.3, 7.10, 7.11, 7.12, & 13.7; page 107, **7.8 Internet Datagram Options** to page 109, **7.8.1 Record Route Option**).

19. Regarding claim 35, Comer teaches, wherein the header comprises a reference to an application (APPLICATION NAME) for indicating whether or not any of the messages is member of a series of messages forming together the application (Figures 7.3, 7.9, & 13.7; page 102, **7.7.4 Datagram Size, Network MTU, and Fragmentation** to page 106, **7.7.7 Time to Live (TTL)**; page 225, **13.15 Acknowledgements and Retransmission**).

20. Regarding claim 36, Comer teaches, wherein any of the messages comprises a digital signature (Figures 7.3, 7.4, 7.5, 7.10, 7.11, 7.12, & 13.7; page 99, **7.7.2 Datagram Type of Service and Differentiated Services** to page 101, **7.7.3 Datagram Encapsulation**; page 107, **7.8 Internet Datagram Options** to page 109, **7.8.1 Record Route Option**).

21. As per claim 37, Comer teaches a communication apparatus comprising processing means (ILMS) and a database (ILMDB), arranged for point-to-point communication with another communication apparatus (SRV(m)) by means of messages with flexible message formats (ILMF), the messages comprising:

22. a header at least comprising message definition references (MSG ID, MSG CLASS, MSG VERSION, MSG CREATOR), a sender identifier (SENDER ID) and a destination address (DESTINATION ADDRESS) (Figures 7.3, 13.7, & 13.8; page 98, **7.7.1 Datagram Format** to page 99, **7.7.2 Datagram Type of Service and Differentiated Services**; page 221, **13.11 TCP Segment Format** to page 222, **13.12 Out of Band Data**);

23. message content including at least:

24. number of fields (FIELD COUNT) and content of any field (FIELD (1) , . . .) (Figure 7.3; page 99, paragraphs 2 & 3 beginning at “The header length field (HLEN). . .” and ending with “. . . packets larger than 65,535 octets”);

25. characterized in that the message content also comprises:

number of objects (OBJECT COUNT) and content of any object (OBJECT(1),...), the objects being referred to by one or more of the fields (Figure 7.3 & 7.9; page 99, paragraphs 2 & 3 beginning at “The header length field (HLEN). . .” and ending with “. . . packets larger than 65,535 octets”; page 102, **7.7.4 Datagram Size, Network MTU, and Fragmentation** to page 106, **7.7.7 Time to Live (TTL)**);

number of field mappings and content of any field mapping, any field mapping being usable by predetermined fields (Figure 7.9; page 102, **7.7.4 Datagram Size, Network MTU, and Fragmentation** to page 106, **7.7.7 Time to Live (TTL)**);

number of actions and content of any actions, any action being at least usable by predetermined fields (Figure 7.9; page 102, **7.7.5 Reassembly of Fragments** to page 106, **7.7.7 Time to Live (TTL)**);

and in that the database (ILMDB) stores a predetermined message definition table (msgdef), a field definition table (flddef), mapping instructions (fldmap) and message action lists (fldact, msgpre, msgpost) (Figure 7.9; page 102, **7.7.6 Fragmentation Control** to page 106, **7.7.7 Time to Live (TTL)**);

and in that the processing means (ILMS) is arranged to interpret and process messages while consulting the predetermined message definition table (msgdef), mapping instructions (fldmap) and message action lists (fldact, msgpre, msgpost) stored in the database (ILMDB) using the message definition references as references to the predetermined message definitions (Figures 5.3 & 7.9; page 82, **5.10 ARP Implementation** to page 84, **5.11 ARP Encapsulation and Identification**; page 84, **5.12 ARP Protocol Format** to the end of page 85; page 102, **7.7.6 Fragmentation Control** to page 106, **7.7.7 Time to Live (TTL)**).

26. With regards to claim 38, Comer teaches, wherein the predetermined message definition table (msgdef) comprises a message identifier (msgid) for identifying any of the messages

Art Unit: 2155

(Figures 7.3, 7.9, & 13.7; page 105, **7.7.6 Fragmentation Control** to page 106, **7.7.7 Time to Live (TTL)**; page 221, **13.11 TCP Segment Format** to page 222, **13.12 Out of Band Data**).

27. With regards to claim 39, Comer teaches, wherein the predetermined message definition table (msgfdef) comprises a message class identifier (msgclass) for identifying a message class for any of the messages, like mail, business message, orders for shipping (Figures 7.3 & 7.4; page 99, **7.7.2 Datagram Type of Service and Differentiated Services** to page 101, **7.7.3 Datagram Encapsulation**).

28. With regards to claim 40, Comer teaches, wherein the predetermined message definition table (msgfdef) comprises a message version identifier (msgver) for identifying a version number of any of the messages (Figures 7.3 & 13.7; page 98, last paragraph to page 99, the line ending with “IPv4 is often used to denote the current protocol”; page 225, **13.15 Acknowledgements and Retransmission**).

29. With regards to claim 41, Comer teaches, wherein the predetermined message definition table (msgfdef) comprises a message creator identifier (creatid) for identifying a creator of any of the messages (message creator identifier (MSG CREATOR) for identifying a creator of any of the messages (Figures 7.3 & 13.7; page 221, **13.11 TCP Format**).

30. With regards to claim 42, Comer teaches, wherein the predetermined message definition table (msgfdef) comprises a reference to a type of encryption (encrtype) applied (Figures 7.3,

Art Unit: 2155

7.10, 7.11, 7.12, & 13.7; page 107, **7.8 Internet Datagram Options** to page 109, **7.8.1 Record Route Option**).

31. With regards to claim 43, Comer teaches, wherein the predetermined message definition table (msgdef) comprises a reference to a digital signature type (sigtype) applied (Figures 7.3, 7.4, 7.5, 7.10, 7.11, 7.12, & 13.7; page 99, **7.7.2 Datagram Type of Service and Differentiated Services** to page 101, **7.7.3 Datagram Encapsulation**; page 107, **7.8 Internet Datagram Options** to page 109, **7.8.1 Record Route Option**).

32. With regards to claim 44, Comer teaches, wherein the predetermined message definition table (msgdef) comprises a message system identifier (msysid) for use as a reference to further tables in the database (ILMDB) (Figure 7.4, 7.5, 7.6, 7.10, 7.11, & 7.12; page 107, **7.8 Internet Datagram Options** to page 109, **7.8.1 Record Route Option**).

33. Concerning claim 45, Comer teaches wherein the further tables comprise a field definition table (flddef) for holding primary definitions for any field of the messages (Figures 7.10, 7.11, & 7.12; page 107, **7.8 Internet Datagram Options** to page 109, **7.8.1 Record Route Option**).

34. Concerning claim 46, Comer teaches wherein the further tables comprise a field mapping table (fldmap) comprising the mapping instructions usable by predetermined fields, e.g. for mappings to hyper text markup language fields, database fields, flat file fields and other message

Art Unit: 2155

fields, the database fields and flat file fields being stored in a customer database (CDB) (Figures 7.10, 7.11, 7.12, 7.15; & 7.16; page 107, **7.8 Internet Datagram Options** to page 109, **7.8.1 Record Route Option**; page 111, **7.8.3 Timestamp Option** to page 113, **7.8.4 Processing Options During Fragmentation**).

35. Concerning claim 47, Comer teaches wherein the further tables comprise a field action table (fldact) comprising the message action lists usable by predetermined fields (Figures 7.10, 7.11, 7.12, 7.15; & 7.16; page 107, **7.8 Internet Datagram Options** to page 111, **7.8.3 Timestamp Option**).

36. Concerning claim 48, Comer teaches wherein the further tables comprise a message pre-processing table (msgpre) comprising a list of actions to be executed as pre-processing for a message either received or to be send and a message post-processing (msgpost) comprising a list of action to be executed as post-processing for a message received (Figures 7.10, 7.11, 7.12, 7.15; & 7.16; page 90, **6.2 Reverse Address Resolution Protocol (RARP)** to page 92, **6.3 Timing RARP Trasmissions**; page 107, **7.8 Internet Datagram Options** to page 111, **7.8.3 Timestamp Option**).

37. Concerning claim 49, Comer teaches wherein the field action table (fldact), the message pre-processing table (msgpre) and the message post-processing table (msgpost) comprise references to types of action selected from the following group of actions: database type of actions and logical type of actions including mathematical calculations, assignments, logical

Art Unit: 2155

operations and conditional operations, and commands (Figures 7.10, 7.11, 7.12, 7.15, 7.16, & 8.4; page 90, **6.2 Reverse Address Resolution Protocol (RARP)** to page 92, **6.4 Primary and Backup RARP Transactions**; page 107, **7.8 Internet Datagram Options** to page 111, **7.8.3 Timestamp Option**; page 121, **8.8 The IP Routing Algorithm** to page 124, **8.10 Handling Incoming Datagrams**).

38. With regards to claim 50, Comer teaches, wherein the message definition table (msgdef) comprises an application field (appmain) for indicating whether a message received is a first message of an application and an application name field (appname) for referring to a name of the application, in order to define the application as a collection of data messages and their associated actions (Figures 7.3, 7.9, & 13.7; page 102, **7.7.4 Datagram Size, Network MTU, and Fragmentation** to page 106, **7.7.7 Time to Live (TTL)**; page 225, **13.15 Acknowledgements and Retransmission**).

39. Concerning claim 51, Comer teaches a communication apparatus according to claim 50, wherein the application is a distributed application distributed over a plurality of communication apparatuses (Figures 7.3, 7.9, 8.4, & 13.7; page 90, **6.2 Reverse Address Resolution Protocol (RARP)** to page 92, **6.4 Primary and Backup RARP Transactions**; page 102, **7.7.4 Datagram Size, Network MTU, and Fragmentation** to page 106, **7.7.7 Time to Live (TTL)**; page 225, **13.15 Acknowledgements and Retransmission**; page 121, **8.8 The IP Routing Algorithm** to page 124, **8.10 Handling Incoming Datagrams**).

Art Unit: 2155

40. With regards to claim 52, Comer teaches, wherein the apparatus is arranged for requesting a new message definition from a sender if a message received refers to a message definition not present in its database (ILMDB), and receiving the new message definition from the sender and storing it in the message definition table (msgdef) in the database (ILMDB) (Figures 7.10, 7.11, 7.12, 7.15; & 7.16; page 107, **7.8 Internet Datagram Options** to page 111, **7.8.3 Timestamp Option**).

41. With regards to claim 53, Comer teaches arranged to interpret a previously unseen message and to create a new message definition entry in the database (ILMDB) (Figures 7.10, 7.11, 7.12, 7.15; & 7.16; page 107, **7.8 Internet Datagram Options** to page 111, **7.8.3 Timestamp Option**).

42. With regards to claim 54, Comer teaches, wherein the processing means (ILMS) are arranged to either merge a message received with a designated HTML file or if the designated HTML file is not found by the processing means (ILMS), to create a default dynamic HTML file (Figures 7.3, 7.9, & 13.7; page 102, **7.7.4 Datagram Size, Network MTU, and Fragmentation** to page 106, **7.7.7 Time to Live (TTL)**; page 225, **13.15 Acknowledgements and Retransmission**).

43. Concerning claim 55, Comer teaches a system comprising a communication apparatus (SRV (m)) according to claim 28 and a terminal (ILMC) connected to the communication apparatus, the terminal comprising a terminal processor (1), a display unit (6) and input means

Art Unit: 2155

(12, 13) for inputting data by a user, the communication apparatus being arranged for passing a message received to the terminal if the terminal is indicated in the message to be the destination address, and the terminal processor (1) is arranged to either merge the message with a designated HTML file or if the designated HTML file is not found by the terminal processor (1), to create a default dynamic HTML (Figures 7.3, 7.9, & 13.7; page 90, **6.2 Reverse Address Resolution Protocol (RARP)** to page 92, **6.4 Primary and Backup RARP Transactions**; page 102, **7.7.4 Datagram Size, Network MTU, and Fragmentation** to page 106, **7.7.7 Time to Live (TTL)**; page 225, **13.15 Acknowledgements and Retransmission**).

Conclusion

45. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

46. The applicant is further advised to gain a better understanding of the prior art by reviewing Chapters 5, 7, 8, and 13 Internetworking with TCP/IP Principles, Protocols, and Architectures by Douglas E. Comer. The examiner believes that chapters 7 and 8 cover the claim limitations sought in claims 28 through 36 and 55, while chapter 5 teaches those additional limitations sought in claims 37 to 54.

47. The following patents are cited to further show the state of the art with respect to point to point protocols, such as:

United States Patent No. 6,101,543 to Alden et al., which is cited to show a method and apparatus for frame capture, encapsulation and encryption.

United States Patent No. 6,141,686 to Jackowski et al., which is cited to show a method to gather data about network-traffic from the client-side.

Art Unit: 2155

48. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christian La Forgia whose telephone number is (703) 305-7704.


The examiner can normally be reached on Monday thru Thursday 7-5.

49. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (703) 305-9648. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7240 for regular communications and (703) 746-7239 for After Final communications.

50. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Christian La Forgia
Patent Examiner
Art Unit 2155

clf
January 29, 2003


AYAZ SHEIKH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100